Attachment H

Donner Creek and Lake

ATTACHMENT H

Donner Creek and Lake

The evaluation of the environmental and economic effects of TROA on Donner Creek Lake was based upon several factors. First, a review was conducted of the 1998 draft EIS/EIR and related public comments to determine key issues. Public meetings conducted at that time identified Donner Lake home owner concerns, which combined with input from local area leadership, aided in further defining potential impacts. Local leadership was provided through the Truckee River Basin Water Group. These meetings with home owners, coordination meetings with local leaders, and analytical meetings with representatives from various public agencies, helped to determine evaluation methodologies.

One of the purposes of the activities described above was to clarify the dual objectives of increasing instream flow benefits in Donner Creek and enhancing recreational beneficial uses for both the creek and Donner Lake. Specifically, recreation was evaluated using indicators such as changes in lake levels, aesthetics (the visual effects of lowered water levels), fishing in the lake and creek, visitor days, boat ramp usage and economics. Thresholds values were developed and used in combination with best professional judgment to determine the significance of operational changes at Donner Lake associated with the TROA.

The analytical methods used to evaluate potential changes included mathematical model assessments, statistical comparison, and field surveys, as well as biological, recreation, aesthetic, and economic assessments. The mathematical methods included assessments for operations, economics and visitor days. Key indicators used to compare differences between TROA and the other alternatives specific to hydrologic conditions, included end of month storage, average change in lake and reservoir levels, river and tributary flows, and recreation usage.

In regards to TROA's potential effect on aesthetics when compared to the no action alternative, the model showed that average monthly lake level in Donner Lake was a few inches lower in July, August and October, and was about a foot higher in September. The annual average lake levels will be generally higher with TROA. Generally, significant effects to aesthetic resources would occur if the proposed activity adversely affects a scenic vista or degrades scenic resources. Given that the average differences in lake levels between TROA and the other alternatives are not expected to be discernible, there will be no significant degradation of scenic vistas or resources around the Donner Lake area.

Seasonal recreation visitation and associated expenditures were used as indicators to evaluate the effects of TROA on reservoir recreation at Donner Lake. Variations were evaluated for different hydrologic conditions including wet, dry and median. A recreation model was used to provide input to the economic model to determine differences in visitation and expenditures among alternatives. The analysis showed that for all hydrologic conditions, visitation and expenditures at Donner Lake were, on the average, 0.31% higher with TROA when compared to the no action alternative. When specifically comparing wet and dry periods, visitations and expenditures were .05% to .26% lower, respectively, while visitation and expenditures under TROA were 1.18% higher under median conditions. These variations were considered not to be significant

because the overall differences in average visitation among the alternatives were less than 1.0 percent, and average visitation under TROA, when compared to the other alternatives is expected to be slightly higher.

Another indicator that was used to determine the potential effect of TROA on Donner Lake recreational usage was boat ramp usability during the recreation season. Under TROA, when compared with the no action alternative, boat ramps in Donner Lake will be useable 14% more of the time under median hydrologic conditions and they will be useable 14% less of the time under dry hydrologic conditions. Under wet hydrologic conditions there is no difference among the alternatives. Because of the improvement in boat ramp usability under TROA under median conditions, which represents the majority of the time, TROA will have an overall positive effect on boat ramp usability at Donner Lake and consequently TROA is not expected to have a significant adverse impact on boat ramp usage.

A final indicator that was used to determine the potential effect of TROA on Donner Lake recreational usage was usability of stationary docks at Donner Lake. With TRO would not be significantly affected under any alternative during June, July, or August

An indicator used to evaluate stream-based recreation for Donner Creek was the suitability of flows for fly fishing and spin/lure/bait fishing in the creek during the recreation season. Operations model results showed that flows preferred by fisherman (40-50 cfs) for fly fishing and spin/lure/bait fishing will not be obtained during wet or dry hydrologic conditions either under TROA or the No Action alternative. In median hydrologic years, preferred flows for fly fishing will be obtained 29% of the time under both the TROA and No Action alternative. Because the model results show that there will be no difference in fishing opportunities, between TROA and the No Action alternative, TROA would not be expected to have a significant effect on fishing in Donner Creek.

With TROA, study results shows a significant benefit to meeting preferred flows for brown trout in Donner Creek, where TROA meets preferred flows 33% of fall/winter months, while Current Conditions only meet preferred flows 14% of fall/winter months. TROA will also provide a significant benefit to meeting preferred flows for rainbow trout in Donner Creek, where TROA meets preferred flows 31% of spring/summer months, while Current Conditions meet preferred flows 18% of spring/summer months. Finally, the frequencies of the occurrence of flows low enough during winter months to increase the potential for icing conditions under TROA show a significant beneficial effect when compared to Current Conditions in Donner Creek.

TROA may provide additional benefits not reflected in the model runs used for the above analysis. After TROA is signed and becomes effective, California will annually submit Guidelines for Truckee River Reservoir Operations concerning instream flows in Donner Creek and Donner Lake reservoir levels. These Guidelines will develop specific operational goals and objectives based on the specific hydrology for that year, to help encourage and guide operators in meeting California's objectives, including those for Donner Lake and Donner Creek. During a dry season California will not specify a preferred instream flow in Donner Creek.

Under TROA it is expected that habitat conditions in Donner Creek will improve. Fishery conditions will also be improved by the increased flows made available by TROA. Parties to TROA will provide between $50,000 and $100,000 yearly to a Habitat Restoration Fund, which will be distributed to California during the first two years TROA is in effect, and thereafter to Nevada, the Pyramid Tribe, and California will each receive one-third of the funds each decade TROA is in effect. A portion of California's share of the fund could be made available to plan and implement fish habitat restoration or maintenance projects in Donner Creek California's minimum storage objective in Donner Lake is 6.3 TAF for the period June through August. To preserve higher lake levels, TROA provides that no scheduling party will be required to exchange water out of Donner Lake when the Lake is below 7.5 TAF in June and July, and 6.5 TAF in August. TROA also allows California to arrange required trades of joint program fish credit water for privately owned stored water in Donner Lake, which may maintain water levels in Donner Lake if circumstances result in high summer releases of water to satisfy downstream needs. Finally, TROA allows for a temporary downward adjustment of enhanced minimum instream flows, which could improve lake levels if conditions warrant. These adjustments will require coordination between the California Department of Fish and Game and local interests. The results of this coordination will be the development of an annual plan for implementing an appropriate balance between the maintaining Lake levels and instream flows.